Message

From: Nordine, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6F082FB004BA4D818FE3276686C84C63-JNORDINE]

Sent: 3/5/2019 4:51:35 PM

To: jack@autumnwoodesh.com; Kay, Robert T [rtkay@usgs.gov]

CC: Gerald Ruopp [gruopp@centralwire.com]; 'Robert Johnson' [robert.johnson@centralwire.com]; Bob Kay

[rtkay@usgs.gov]

Subject: RE: Work Plan to Evaluate EW-2 Capture Zone, Techalloy/Central Wire, Union, Illinois

Hi Jack,

EPA has reviewed the Work Plan to Evaluate Extraction Well No. 2 Capture Zone developed by Autumwood ESH Consultants for the Techalloy/Central Wire facility in Union, Illinois. This document is Revision 1 and is dated March 2019.

EPA's comments are;

The text indicates the piezometers will be drilled at or near the water table. The wells should be screened in the middle of the aquifer. Screening these wells at the water table may result in partial penetration effects on water levels that could result in an incorrect understanding of the magnitude of pumping effects.

ALL piezometers need to have a minimum of 15 ft in length screens and screened at the same elevation. Be sure to take in the effect of topography in setting the elevation of the screens.

The procedures for well development need to be discussed. How will development be done? What criteria will be used to determine when to stop development? How will the development water be disposed of?

The pressure transducers Techalloy wants to use need to be adjusted for barometric pressure fluctuations. Unless Techalloy can detail how they plan on doing this, including how they plan on reading barometric pressure, EPA suggests using a transducer system (Troll for example) that automatically compensates for changes in barometric pressure.

EPA suggests a 0-15 psi transducer to improve the resolution of the readings.

Depth of the pressure transducers should be based on depth below water level in the well, not depth of casing. A depth 15 ft or so below the water level in the well should be sufficient.

The text implies, but does not explicitly state, whether or not the elevations of the reference point and the piezometers will be surveyed. Clarification should be provided.

It's not enough to just note that manual water levels will be collected. The work plan should note how these levels will be checked and how often against the transducer readings and corrected in real time, if necessary.

If you have any questions please contact me.

Respectfully,

John Nordine, CPG, LPG U.S. EPA, Region 5 RCRA Corrective Action Section 77 W. Jackson Blvd. LU-16J Chicago, Illinois 60604 Phone: 312-353-1243 Fax: 312-385-5338

"The great end of education is to discipline rather than finish the mind; to train it to use of its own powers rather than to fill it with the accumulation of others." Tryon Edwards

"Don't interfere with anything in the Constitution. That must be maintained, for it is the only safeguard of our liberties." Abraham Lincoln

"Many people use statistics in the same manner in which a drunk uses a lamp post; for support, rather than for illumination." Mark Twain

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From: jack@autumnwoodesh.com < jack@autumnwoodesh.com >

Sent: Friday, March 01, 2019 4:03 PM

To: Nordine, John <nordine.john@epa.gov>; Kay, Robert T <rtkay@usgs.gov>

Cc: Gerald Ruopp <gruopp@centralwire.com>; 'Robert Johnson' <robert.johnson@centralwire.com>

Subject: Work Plan to Evaluate EW-2 Capture Zone

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John & Bob:

Attached is the revised work plan. Thanks for your input.

Gerry is on vacation this week and has not seen it yet.

Geoserve said we are still on for Friday, March 8.

Regards,

Jack

John W. Thorsen, P.E.

Autumnwood ESH Consultants, LLC

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